



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,003	03/07/2005	Daniele Franceschini	23223	4616
<div>535 7590 09/27/2007</div> <div>K.F. ROSS P.C. 5683 RIVERDALE AVENUE SUITE 203 BOX 900 BRONX, NY 10471-0900</div>				
			<div>EXAMINER</div> <div>HERRERA, DIEGO D</div>	
			<div>ART UNIT</div> <div>2617</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>09/27/2007</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,003

Applicant(s)

FRANCESCHINI ET AL.

Examiner

Diego Herrera

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because they are not labeled as to follow the diagram. Applicant is advised to employ the services of a competent patent draftsman

Art Unit: 2617

outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

Claims 1 and 7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 3, 5, 9, and 10. See MPEP § 608.01(n). Accordingly, the claims 3, 5, 9, and 10 are not been further treated on the merits.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuskar et al. (US publication 20020102984), and in view of Cao et al. (US publication 20020089952 A1) .

Regarding claims 1 and 7. Furuskar et al. discloses method for dimensioning a network based on Code Division Multiple Access techniques or CDMA (paragraph [0003], Furuskar et al. teaches CDMA system) for input parameters that are representative of coverage requirements and/or capacity requirements and/or quality requirements able to provide at least a value of maximum sustainable load per cell given a plurality of services provided, comprising the steps of:

- determining a load factor per cell on the basis of the input parameters (paragraph [0019], Furuskar et al. teaches cell capacity, power control, attenuation);

characterized by the steps of:

- verifying whether the determined load factor corresponds to the maximum load

Art Unit: 2617

sustainable by a base terminal station or BTS and, if the determined load factor exceeds the maximum sustainable load (paragraph [0009], [0021], Furuskar et al. teaches maximum or high load);

- however, Furuskar et al. does not specifically teaches negotiating at the Radio Resource Management (RRM) level at least one of the services provided in said network in such a way that the determined load factor becomes smaller than or equal to the maximum sustainable load or is optimized taking into account the characteristics of the network, nevertheless, Cao et al. does teach the limitation (paragraph [0007], [0009]-[0012], [0021], Cao et al. teaches RRM).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Furuskar et al. to specifically include negotiating at the Radio Resource Management (RRM) level at least one of the services provided in said network in such a way that the determined load factor becomes smaller than or equal to the maximum sustainable load or is optimized taking into account the characteristics of the network as taught by Cao et al. for the purposes of packet transmission scheduling.

Consider claim 2. Method as claimed in claim 1, the combination discloses characterized in that the load factor is determined taking into account real "power control" procedures, by attributing to the ratio between useful signal power and total interference density of the BTS a normal or Gaussian distribution in decibels (paragraph [0010], [0140]-[0143], Cao et al. teaches power control and limits).

Art Unit: 2617

Consider claim 4. Method as claimed in claim 3, the combination discloses characterized in that the step of negotiating at least one of the services provided comprises the step of negotiating one among the functionalities of

- packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling);
- congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS); and
- admission control (paragraph 58,59, Cao et al. teaches admission control).

Consider claim 6. Method as claimed in claim 5, the combination discloses characterized in that the step of negotiating at least one of the services provided comprises the step of negotiating one among the functionalities of

- code management (paragraph [0084]-[0087], Cao et al. teaches management of codes);
- power management (paragraph [0119]-[0121], Cao et al. teaches power constraints);
- packet scheduling (paragraph 0003, Cao et al. teaches packet scheduling);
- congestion control (paragraph 0009-0012, Cao et al. teaches controlling load with QoS); and
- admission control (paragraph 58,59, Cao et al. teaches admission control).

Consider claim 8. Method as claimed in claim 7, the combination discloses characterized by the further steps of

- determining for each service a load factor per cell (UDL) and corresponding

Art Unit: 2617

values of power per channel for the downlink radio path (paragraph [0019],

Furuskar et al. teaches cell capacity, power control, attenuation);

- verifying whether the power per channel of at least one service exceeds power limits prescribed for said service and, if the power per channel of at least one service exceeds the prescribed power limits (paragraph [0009], [0021], Furuskar et al. teaches maximum or high load);

-- However, Furuskar et al. does not specifically teaches negotiating at the Radio Resource Management (RRM) level at least one of the services provided in said network in such a way that the determined load factor becomes smaller than or equal to the maximum sustainable load or is optimized taking into account the characteristics of the network, nevertheless, Cao et al. does teach the limitation (paragraph [0007], [0009]-[0012], [0021], Cao et al. teaches RRM).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Furuskar et al. to specifically include negotiating at the Radio Resource Management (RRM) level at least one of the services provided in said network in such a way that the determined load factor becomes smaller than or equal to the maximum sustainable load or is optimized taking into account the characteristics of the network as taught by Cao et al. for the purposes of packet transmission scheduling.

Art Unit: 2617

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diego Herrera whose telephone number is (571) 272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Diego Herrera
Patent Examiner


LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER